

Endocrinology

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THE MORPHOLOGY OF PARS INTERMEDIA OF THE HUMAN HYPOPHYSIS*

A. T. RASMUSSEN

From the Department of Anatomy, Medical School,
University of Minnesota

MINNEAPOLIS

CONTENTS

Introduction	129
Is there a true pars intermedia in adult human hypophysis?....	130
Histology of pars intermedia in man.....	132
Relative size of pars intermedia in animals.....	138
Relative size of pars intermedia of human fetus and newborn..	139
Absolute and relative weight of pars intermedia of normal male adult human hypophysis.....	139
Frequency distribution of absolute weight.....	141
Coefficient of variation.....	143
Relative weight with reference to the whole hypophysis and to the epithelial portion only.....	143
Relation of pars intermedia to stature.....	144
Relation of pars intermedia to age.....	146
Summary	148
Bibliography	149

INTRODUCTION

It is very evident from such reviews of the pituitary problem as the one by Geiling (1), that we are in the midst of an

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Experimental cretinism. I. A rachitic-like disturbance in extreme hypothyroidism. Kunde, M. M. and A. J. Carlson, *Am. J. Physiol.* 82: 630-638. 1927.

A study was made of 404 thyroidectomized rabbits shown by their weight curves to be actually hypothyroid. It was found that cretin rabbits (thyroidectomized between 2 and 3 weeks after birth) develop a condition of disturbance in skeletal development which fundamentally stimulates clinical rickets. This is not due to a dietary deficiency. This rickets-like condition is accompanied by severe anemia. It is characterized by a normal or slightly depressed concentration of the blood calcium and a low acid soluble phosphorus of the serum.—R. G. H.

Experimental cretinism. II. The influence of the thyroid glands on the production and control of experimental rickets. Kunde, M. M. and L. A. Williams, *Am. J. Physiol.* 83: 245-249. 1927.

Experiments were made upon 46 rats. It was found that no amount of cod liver oil added to a ricket-producing diet is adequate to prevent the development of rickets in cretin rats as determined from histological studies of the epiphysis. Supplying antirachitic vitamins in the form of vitamine-rich foodstuffs to a nutritious diet consisting of table scraps failed to prevent the occurrence of rickets.
—R. G. H.

Thyroid gland substance implantations. Kurtzman, H. and H. Hubner, *Zentralbl. f. d. ges. Med.* 54: 1666. 1927.

This article reviews in brief the various methods of transplanting thyroid gland. All of these methods had negative results as to the continued growth and functioning of the gland. The substance was, after a period of time, absorbed and scar tissue formed. The authors have treated three myxoedematous cretins by thyroid gland substance implantations. The thyroid gland was scraped and the substance injected subcutaneously into the cretins by means of a pressure syringe. In one case the subject, aged 11, showed improvement after the treatment with a mental awakening. The second subject, age 13, showed no improvement at all. The third child, with a mental age of two and a half years and with osseous maldevelopment, could utter only unintelligible sounds. After three injections over a period of one year the child tried to repeat spoken words, was livelier and became more active mentally. The authors conclude that the resulting effects were by no means over-estimated, but furnish proof that mental and physical improvement may be obtained by injection of thyroid tissue in myxoedematous cretins.

—L. L. Stanley.